

...in Leningrad.

chemical-heat treatment and is used successfully in the automobile industry.

3. Hardening of the drilling bits for use in the oil industry.

4. "Bright" annealing of steel strip.

5. Two-frequency heating of steel blanks for heating by applying pressure, particularly for rolling.

6. Heating and hardening of leaf springs on automatic machines.

7. High speed tempering of hardened components using high frequency heating etc. For automating technological processes, the following are at present manufactured:

An automatic machine for heating and hardening of leaf springs; manipulator for horizontal forging machines;

automatic machines for hardening of small components.

Of the new apparatus used in induction heating, the author mentioned a stabiliser of the temperature of components being heated, a photo-electric pyrometer with a direct reading off of the temperature, relay for dosing the energy,

etc. Of particular interest were the data he gave on

Card 3/14 the two-frequency heating of gears. The entire process

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All-Union Conference held in Leningrad on

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CIA-RDP86-00513R001240720007-8"

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blanks which are to be shaped by applying pressure is also effected by two-frequency induction heating using 50 c.p.s. current for heating to 700-750°C followed by heating with high frequencies to 1100-1150°C. The two-frequency induction heating reduces the consumption of electricity in the case of heating right through of blanks. For tempering and annealing of weld joints, induction heating with 50 c.p.s. and with higher frequencies is used. The paper of M. G. Lozinskiy, Doctor of Technical Sciences, Institute of Engineering Technology, Ac.Sc. USSR (Institut Mashinovedeniya AN SSSR) dealt with the problems of strength of surface hardened components and the features of high frequency heating. The deformation detected by the author in engineering steels "45" and "40X" forms in the surface layer as a result of magnetostriction caused by the a.c. electromagnetic field of the inductor. On a smooth surface of blanks consisting of magnetic steels which were subjected to repeated cycles of heating and cooling, "mounds" and

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On conference on industrial use of high frequency currents  
Leningrad.

"valleys" form at spacings equaling the half-wave of the  
supersonic oscillations generated by the high frequency.  
In non-magnetic steels no such phenomenon was observed.  
It was also observed that with increasing number of  
cycles, heating-cooling, the diameter of the cylindrical  
specimens in the heating zone increases, whilst the height  
of the specimens decreases. Furthermore, the author  
reported on the method of G. V. Uzhik which enables  
increasing the static strength up to 300%; this is achieved  
by using h.f. heating of a thin layer in the zone of  
stress concentrations at the surface of steel components.  
Thus, for instance, cylindrical specimens made of hardened  
40X steels with a stress concentrator in the form of a  
notch will be 2.5 times stronger if the notch zone is  
tempered by using h.f. heating. M. G. Lozinskiy considers  
that use of the method of strengthening applying h.f.  
tempering of the stress concentration zones will permit  
evolving specifications which would justify more rational  
designs than those used hitherto.

K. Z. Shepelyakovskiy (ZIL) read the paper "On reducing  
Card 5/14 the hardenability as a means of achieving contour (surface)

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hardening of toothed gears of average modulus. For this purpose a steel with low hardenability, 3Н 937 was used. Gears made of this steel, of 180 mm dia. with a modulus of 4.2, were heated by means of an 8000 c.p.s. current of 100 kW capacity for a duration of 24 secs. The heating was effected in a ring-shaped inductor after which the gears were moved into a ring-shaped shower with a fixed direction of the holes. The teeth and the rims of the gears were subjected to hardening. The strength of the hardened teeth was investigated by loading until failure. In the case of gears made of the steel 30ХГТ (after carburisation and hardening) this load was 15.6 tons, for the steel 3Н 937 the load was 16 tons. In the case of hardening of gears made of the steel 3Н 937, a minimum deformation occurs, the fluctuations along the pitch circle after hardening amounted to 0.01-0.02 mm. In some cases the contact strength should be increased by increasing the carbon content to 0.6-0.7%.

E.P. Scientific Research Institute imeni V.P. Vologdin  
Card 6/14 (NII-TVCh imeni V. P. Vologdina) presented a paper on

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Surface hardening of gears by induction heating with two frequencies. The method ensures heating along the contour of gears with moduli of 3.5 to 5. During heating with a lower frequency (1000 to 2000 c.p.s.), the bottom of the tooth gap is heated intensively, whilst at radio frequency (300 000 c.p.s.) the tip of the tooth is heated. The same inductor is used for both frequencies. The heating with the lower frequency lasts 2.5 to 4 secs, thereby the specific power consumption is 1.5 to 1.7 kW/cm<sup>2</sup>. Heating with the higher frequency is effected for 0.5 to 0.7 sec using a specific power of 1.1 to 1.2 kW/cm<sup>2</sup>. The 1000 c.p.s. current is generated by a 500 kW rotary generator, whilst the 300 kc/sec current is generated with an oscillator circuit of 400 kW rating. During hardening of gears made of steel "45" cracks occur and, therefore, the carbon content was reduced and alloy steels 36Г2C, 35ГФ etc. are being used. For fracturing a tool of a surface hardened gear a force of 9.5 to 17 tons is required, whilst the force required for fracturing case hardened gears after hardening, made of the steel 16X17, grade 8" Card 7/14 did not exceed 10 tons per tooth. Gears produced by using

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two-frequency hardening wore down three times faster than gears produced according to the old technology. Therefore in the further tests the steels 65F, 50XF, 40XH and 40XHM were used.

The paper of N. M. Rodigin, Ural Branch of the Ac.Sc. USSR (Ural'skiy Filial AN SSRR) was devoted to the new method of induction heating of steel strip. The novel feature consists in the fact that the electro-magnetic field produced by an alternating current is directed perpendicular to its surface and not in the longitudinal direction of the strip. This enables using economical sources of current of elevated frequency, namely, rotary generators. The required temperature distribution along the width of the strip is ensured by an appropriate configuration of the magnetic path and by an air gap between the poles. This method can be used for annealing cold rolled strip, for heating and for preheating of strip during rolling, pickling.

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Staloprokatniy Zavod). The optimum frequency depends on the thickness and the width of the strip. For a thickness of 0.2 to 0.6 mm and a width of 100 mm it is recommended to use a current of 8000 c.p.s.; for strip of 200 mm a current of 2500 c.p.s., and for a width of 400 mm a current of 1000 c.p.s. On heating strip to 700-900°C, the uniformity of the temperature along the breadth of the strip is  $\pm 25^\circ\text{C}$ . For heating, a two-turn inductor was used, whereby the conductors of the current and of the magnetic flux were water cooled. This method was applied in the case of bright annealing of cold rolled strip. For a speed of movement of the strip of 25 m/min the required power was 200 kW (for a frequency of 2500 c.p.s.). The productivity of the equipment equalled 1 ton/hr. The specific power consumption during induction heating is 180-190 kWh/ton. Compared with annealing in chamber furnaces, this method has a number of advantages since thereby the productivity per  $\text{m}^2$  of production space is increased two to threefold, the annealing time is reduced by several hundred times, uniform mechanical properties are ensured along the entire length of the

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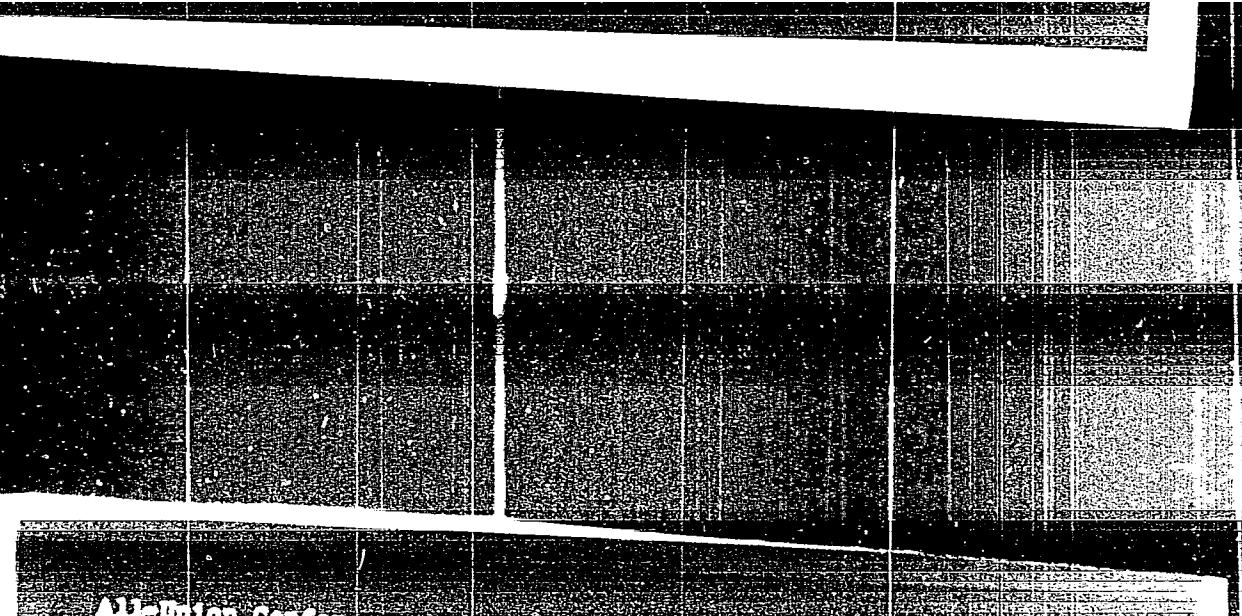
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strip coil and welding together of the strip during annealing is prevented. The specific consumption of electricity is higher for induction heating than for electrical furnaces.

V. N. Gridnev, Doctor of Technical Sciences, Kiev Polytechnical Institute (Kiyevskiy Politekhnicheskiy Institut) dealt with the influence of the speed of heating on the structure and the properties of steel. Apparatus was built for the investigations which enabled simultaneous recording of several physical parameters so that the following could be oscillographically recorded: temperature, change in the length of the specimen and in its electric resistance and also current intensity in the inductor. The recording was effected with a speed of 50 to 10 000 °C/sec and the dilatometric curves were recorded with a speed of 60 000 °C/sec. The following binary alloys were investigated - Fe-Cr (up to 8%),

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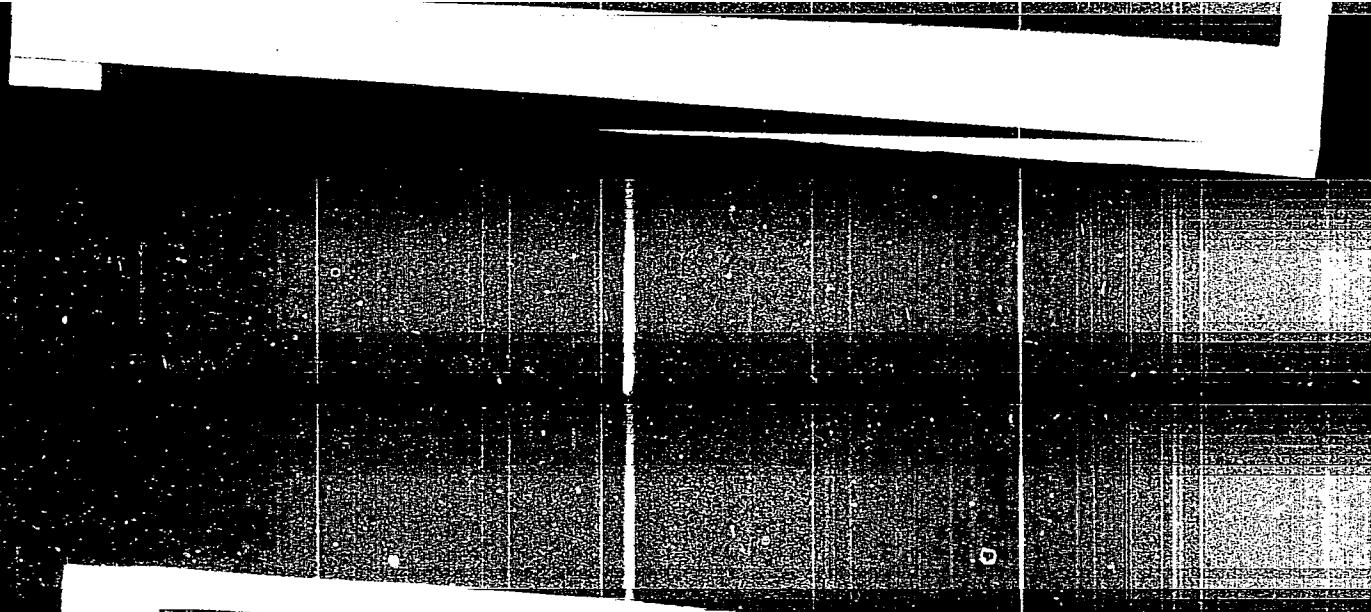


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| equal conditions of heating and cooling. Cooling in a 30 to 35% solution of glycerine and a 5% solution of potassium permanganate brings about a reduction in the deformation and in the crack formation, particularly in the case of alloy steels (40X, 40XH). Tempering at 140 to 200°C reduces the dimensions as compared to the hardened state and thereby the changes in the dimensions of the height and the internal diameter are compensated but the changes of the external diameter are amplified. Increase of the tempering temperature brings about an increase of the deformation. Representatives from Roumania and East Germany participated in the Conference. The German delegate E. Trippmacher reported on the designs of compact h.f. transformers with built-in magnetic paths produced in East Germany. |             |
| <u>NOTE:</u> This is a complete translation and not an abstract.  |             |
| AVAILABLE: Library of Congress.   |             |

Card 14/14

PEYSAKHOVICH, Ye.M.; KISILENKO, V.A.

Metastasis of Brown-Pearce carcinoma following intratracheal  
implantation. Medich.zhur.24 no.3:111-116 '54. (MLRA 8:10)

1. Kiivskiy medichniy stomatologichnyy institut, kafedra pa-  
tologichnoi anatomii.  
(NEOPLASMS, experimental,  
Brown-Pearce carcinoma, intratracheal grafting,  
metastases)

PEYSAKHOVICH, Yu.I., inzh.; ZAV'YALOV, V.V., inzh.; SHCHUKIN, P.V., inzh.

Concerning V.V.Bulgakov's article "Mechanization of repair operations."  
Elek.sta.33 no.1:89-90 Ja '62. (MIRA 15:3)  
(Electric power distribution—Equipment and supplies)  
(Electric power plants—Maintenance and repair)

PEYSAKHSON, I. V.

DOE/ Physics - Spectral analysis

Card 1/1 Pub. 43 - 20/62

Authors : Peysakhson, I. V.

Title : Evaluation of the distorting effect of the optical system of a monochromator on the observed spectral line contour

Periodical : Izv. AN SSSR. Ser. fiz. 18/6, page 680, Nov-Dec 1954

Abstract : It is shown that the final width of the monochromator aperture, the diffraction on the boundaries of light pencils and the aberration of the optical system distort the results of spectrophotometric measurements. This is the main reason why the measured contours of spectral lines and bands do not express the actual spectral distribution of energy entering the test instrument. A method of calculating the distorting effect of the optical system, for the purpose of compensation, is described.

Institution : The A. A. Zhdanov State University, Leningrad

Submitted : .....

PEYSAKHSON, I. V.

## USSR/Physics

Card 1/1      Pub. 127 - 10/12

Authors : Peysakhson, I. V.

Title : Taking into account the distortion effect of the optical system of a monochromator on the observed contour of a spectral line

Publishing : Vest. Len. un. ser. mat. fiz. khim. 5, 129-143, May 1955

Abstract : A derivation is presented of an analytical expression for its practical application to the determination of the true contour of spectral lines observed through a monochromator, i.e., the contour of a spectral line should be determined taking into account the diffraction of a finite width of the monochromator's slit and the aberration of the optical system. Nine references: 1 German, 3 USA, and 5 USSR (1928-1953). Tables; graphs.

Institution : .....

Submitted : Marcy 20, 1954

24(7) PLATE I BOOK EXPLORATION Sov/1700  
USSR. Universitet

Materialnyi i Veseyurnyyi soveschaniya po spektrofizopii, 1956.  
Izdat. Akademika spektrofizopii (Materials of the 10th All-Union Conference on Spectroscopy, 1956, Vol. 2). Atomic Spectroscopy [Avto/L'vovskoye Univ., 1958. 548 p. (Series: Ita: Pis'mennost' shorokh, vyp. 4(9))]. 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektrofizopii.

Editorial Board: G.S. Landberg, Academician. (Rep. Sci.);  
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Candidate of Physical and Mathematical Sciences; A.Ye. Glazeborn, Doctor of Physical and Mathematical Sciences;

M.I. S.L. Osser, Tech. Ed.; P.V. Serenyuk.  
Preface: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel dealing spectrum analysis in various industries.

Coverage: This volume contains 177 scientific and technical studies of atomic spectroscopy presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and included extensive bibliographies of Soviet and other sources. The studies cover many phases of atomic and other sources. The electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology, methods for controlling optics and spectroscopy, abnormal dispersion in metal vapors, atomic spectroscopy and the combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum hydrogen content of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables, and atlases of spectral lines, spark spectrographic analysis, curves, determination of variation in the parameters of calibration metallurgy, thermochimistry in metallurgy, and principles and practices of spectrochemical analysis.

Card 2/31

Materials of the 10th All-Union Conference (Cont.) Sov/1700  
Vaynshteyn, E.O. and L.I. Pavlenko. Studying the Effect of Total Book Composition on the Results of Quantitative Spectral Determination of the Mo Content of Granitoide 120  
Koprtyanets, A.A. The Vertical Sun Telescope and the Small-Lens Diffraction Spectrograph of High Resolving Power at the L'vovskaya astrophotokhokaya observatory [L'vov Observatory] 123  
Kotlyar, B.P. The PGD-17 and PGD-18 Photoelectric Optical Amplifiers for Recording Extremely Small Infrared Radiations 125  
Malyavkin, L.P., A.M. McGillevsky, and I.S. Abramson. Improving the Stability of Photomultipliers for the Photoelectric Recording of Spectra 129  
Poyasheva, I.V. Erractive Spectral Slit Widths of a Monochromator When Aberrations Are Present 133

Card 9/31

AUTHCR: Peysakhson, I. V.

Sov/51-4-4-8/24

TITLE: Distortion of Spectral Lines in Mirror Monochromators  
(Iskrivleniye spektral'nykh liniy v zerkal'nykh monochromatorakh)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 4,  
pp 481 - 485 (USSR).

ABSTRACT: In the spectral apparatus using prisms a monochromatic image of an infinitely narrow rectilinear slit is an arc or a curve which, with sufficient accuracy, may be regarded as a parabola (Ref 1). In spectrographs bending of lines has no effect on the resolving power and is only inconvenient in measurement of spectograms using a microphotometer. In monochromators, the same bending of the entrance-slit image, when this slit is in fact rectilinear, widens the transmission band of the monochromator and this lowers its resolving power leading to errors in spectrophotometric measurements. To decrease these errors, curved entrance slits are used with a radius of curvature  $r_c$  which, for light of a certain wavelength  $\lambda_c$ , make the image of the slit rectilinear. This means, however, that for any other wavelength  $\lambda$ , for which the image of a rectilinear slit has a radius of curvature  $r$ ,

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Sov/51-4-4-8/24  
Distortion of Spectral Lines in Mirror Monochromators

the spectral lines has a curvature  $R$  given by  $1/R = (1/r) - (1/r_0)$ . The value of  $R$  may be large in monochromators where changeable prisms are used with strongly differing refractive indices. The paper gives formulae which allow calculations of curvature of lines produced in monochromators with prisms and diffraction gratings. Curvature of the slit image in a spectrophotometer IKS-11 (Figure 4) was calculated. It is shown that in an auto-collimating monochromator with a plane reflection grating and a parabolic mirror placed off the optical axis (Figure 5) it is possible to correct for curvature of the spectral lines occurring when rectangular slits are used. There are 5 figures and 7 references, 3 Soviet, 3 English, 1 Japanese.

ASSOCIATION: Gosudarstvennyj opticheskiy institute im. S.I. Vavilova  
(State Optical Institute im. S.I. Vavilov)

SUBMITTED: June 21, 1957

Card 2/2 ... spectral analyzers--Performance

AUTHOR: Peysakhson, I.V. 61-44-017-09

TITLE: An Effect of Aberrations of the Optical System of a Monochromator on its Resolving Power (Vliyanie aberratsiy opticheskoy sistemy monokhromatora na ego razreshayushchuyu siliu)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 1, pp. 670-677 (USSR)

ABSTRACT: The notion of an effective spectral width of monochromator slits  $\Delta\nu_e$ , where  $\nu$  is in  $\text{cm}^{-1}$ , is specified more precisely than in earlier publications and is generalized to the case of an optical system with aberrations. The value of this  $\Delta\nu_e$  for a monochromator with aberrations is defined as the width which in the absence of diffraction and aberrations would produce the same distribution of energy at the exit slit as the energy distribution produced by the given real monochromator. An effective geometrical slit-width  $s_e$  is related to the effective spectral slit-width  $\Delta\nu_e$  by the equation  $\Delta\nu_e = s_e \nu^2 / (dI/d\lambda)$ , where  $dI/d\lambda$  is the linear dispersion. The value of  $\Delta\nu_e$ , determined as a half-width of the "apparatus function" of the monochromator, may be used as a measure of its resolving power. The "apparatus function" gives the

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An Effect of Aberrations of the Optical System of a Monochromator on its  
Resolving Power 51-4-5-1723

distribution of monochromatic light at the exit slit of the monochromator. The author calculates the energy distribution in a monochromator with aberrations using the method of element areas due to Slyusarev (Ref 5, 6). Resolving power of monochromators with two identical concave mirrors is calculated and the effect of the meridional increase of the dispersing system (prism or grating) on the magnitude of aberrations of objectives is determined. It was found that on meridional increase of the dispersing element the aberrations of the first (collimator) objective are increased by a factor of  $\Gamma$ , where  $\Gamma$  is the angular magnification. Due to the change in the light-beam width after dispersion the effective relative aperture of the second (camera, objective and its aberrations also depend on  $\Gamma$ . There are 3 figures and 10 references, 6 of which are Soviet, 2 American and 2 German.

Card 2/2

ASSOCIATION: Gosudarstvennyy opticheskiy institut im S.I. Vavilova  
(State Optical Institute named S.I. Vavilov)

SUBMITTED: June 28, 1957

- 1. Opticheskie iuv - Analysis
- 2. Monochromators -
- 3. Theory
- 4. Monochromators - Diffraction
- 4. Monochromators - Characteristics

AUTHOR: Peyatakhon, I.V.

SOV/51-5-2-20/26

TITLE: The Conditions of Resolution of Spectral Lines of Absorption. In Answer to a Paper by Mitra and Sodha (Ref 1). ((Ob usloviyakh razresheniya spektral'nykh liniy pogloshcheniya. Po povodu stat'i Mitra i Sodha (1) )

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 2, pp 209-210 (USSR)

ABSTRACT: Mitra and Sodha (Ref 1) regard two absorption lines to be more easily resolvable than two identically spaced emission lines. Mitra and Sodha confuse the concepts of the resolving power of a spectral instrument and the resolution obtained in particular cases of application of such an instrument. The possibility of resolution of spectral lines depends on the properties of the objects studied and the method of recording the spectrum. For one and the same instrument the resolution may be different in different cases but its resolving power is uniquely determined by the "apparatus function" and cannot be different in the study of absorption and emission spectra. For comparison of the conditions of resolution of absorption and emission lines it is necessary to establish a criterion which would be equally applicable to both absorption and emission. The present author shows that two

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The Conditions of Resolution of Spectral Lines of Absorption. In Answer to a  
Paper by Mitra and Sodha (Ref 1) SOV'51-5-2-2C, '2c

lines of equal intensity are resolved, both in absorption and in emission, if  $B_{\min}/B_{\max} = I_{\min}/I_{\max} = c$ , where  $B$  is the absorption intensity and  $I$  is the emission intensity. The suffixes "max" and "min" refer to the line peaks and the trough between them respectively. The value of  $c$  is determined by the method of recording the spectrum. Thus the resolving power of a spectral instrument is identical for both absorption and emission. There is 1 German reference.

ASSOCIATION: Gosudarstvennyy opticheskii institut im. S.I. Vavilova (State Optical Institute imeni S.I. Vavilova)

SUBMITTED: February 17, 1958

Card 2/2      1. Spectroscopy    2. Spectrum analyzers--Operation    3. Spectrum analyzers--Analysis

24(4)

AUTHOR: Peysakhson, I.V.

SOV/51-6-5-32/34

TITLE: Letter to the Editor (Pis'mo v redaktsiyu)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 5, pp 713 (USSR)

ABSTRACT: In an earlier paper (Ref 1) the author quoted Rautian's value (Ref 2, of the radius of curvature of the edges of the entry slit of the monochromator IKS-11. This value was quoted as  $r_0 = 105$  mm and it was suggested that the curvature of spectral lines is not completely compensated in this monochromator. Actually the value of this radius, given by the factory which makes this instrument, is  $r_0 = 158$  mm and this means that both the dispersion and the aberration curvatures of the spectral lines are almost completely compensated for all interchangeable prisms in the monochromator. This is a complete translation. There are 2 Soviet references.

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24(4)

AUTHOR: Peysakhson, I.V.

SOV/51-6-32/34

TITLE: Optical Systems for Focusing of Infrared Radiation on a Receiver  
of Small Dimensions (Opticheskiye sistemy dlya fokusirovki infrakrasnoy  
radiatsii na priyemnik malykh razmerov)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 6, Nr 6, pp 831-832 (USSR)

ABSTRACT: In many infrared instruments (such as IKS-11, IKS-6) radiation leaving the exit slit of a monochromator is focused on a receiver by means of an elliptical mirror. Apart from the difficulty of producing a perfect ellipsoidal surface, this arrangement limits the dimensions of the receiver which has to be placed in the beam of light falling on the elliptical mirror. Moreover, the image of the exit slit, although free from aberrations on the mirror axis, exhibits considerable coma at non-axial points. Projection systems consisting of two spherical mirrors (a convex mirror I and a concave one II) are free from these disadvantages. One of the systems proposed is denoted by 1 in the figure on p 831. It has an aperture in the concave mirror and it was first used in 1950 as an objective in an infrared microspectrometer (Gershgorin's design). The other system, denoted by 2 in the figure, is a reversed mirror micro-objective proposed by V.M. Chulanovskiy (in 1951) for

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SCV/51-6-6 32/34  
Optical Systems for Focusing of Infrared Radiation on a Receiver of Small Dimensions

imaging of the exit slit of a monochromator onto the surface of a thermal receiver in an infrared spectrometer ISF-1 made at the Experimental Workshop of the Physics Institute at Leningrad State University (the author's design). A special case of the second system has been described by Greenler (Ref 1) in 1956. It was found that spherical aberration can be corrected for in both systems when the latter are used at reductions of 4 to 10. Such a correction still leaves one free parameter (distance  $d$  between mirrors or distance  $s$  from the slit to the first, convex mirror). Consequently coma can be corrected for in system 1. In system 2 coma cannot be eliminated but its value is somewhat lower than that produced by an elliptical mirror at the same conditions of reduction. Trigonometric calculations showed that both two-mirror systems give a better image than an elliptical mirror under the same conditions (the same slit height, the same reduction and the same length of the device). To avoid vignetting of oblique beams and to decrease the dimensions of the mirrors and apertures in them, it is useful to employ a collecting lens near the monochromator slit. This

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Optical Systems for Focusing of Infrared Radiation on a Receiver of Small Dimensions SOV/51-6-6 32/34

lens should be designed in such a way as to place the entry pupil at the convex mirror in system number 1 and to make the exit pupil the same in position and dimensions as the aperture in the convex mirror. A collecting lens may be made of fluorite, rocksalt or potassium bromide. Use of such a collector in a system corrected for spherical aberration does not affect the magnitudes of other aberrations. There are 1 figure and 1 English reference.

Card 3/3

CHULANOVSKIY, V.M.; PEVSHENOK, I.V.; S.O. IRKIN, D.I.

Determination of absolute values of parameters characterizing  
the intensity in the infrared absorption spectrum when time  
distortions are present. Part 1. Opt. i sp. tr. 7 no. 6:763-  
769 D 1959. (Zh. 14:2)  
(Spectra, infrared) (Absorption spectra)

68311

SOV/31-8-1-10/40

**24.3410**AUTHORS: Chulanovskiy, V.M., Peysakhson, I.V. and Shchepkin, D.N.TITLE: Determination of the Absolute Values of the Intensity Parameters in  
an Infrared Absorption Spectrum when Secular Distortions are Absent. II.

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 1, pp 57-60 (USSR)

ABSTRACT: In Part I (Optika i spektroskopiya, 1959, Vol 7, 763) the authors described three methods of determination of the intensity parameters for the case when secular distortions are absent (no details of these methods are given here). The present paper reports the results of a comparison of these methods and deals with the possibility of their use in current spectral apparatus. To compare their methods the authors used the  $\nu_{C-H} = 3020 \text{ cm}^{-1}$ ,  $\nu_{C=O} = 3417 \text{ cm}^{-1}$ ,  $\nu_{C=C} = 2120 \text{ cm}^{-1}$  and  $\nu_{N-H} = 3437 \text{ cm}^{-1}$  bands of chloroform (Table 1), methyl ethyl ketone (Table 2), hexine (Table 3), and a solution of diphenylamine in  $CCl_4$  (Table 4) respectively. Each of these bands had a different half-width  $b$  ( $b$  ranged between 12 and  $35 \text{ cm}^{-1}$ ). A Perkin-Elmer monochromator (LiF prism) was employed together with an amplifier FEOU-18 and a recorder KPP-09. Before measurements the entry and exit slit-widths were equalized. The results are given in Table 1-5, where the following symbols are used:  $S$  is the geometrical width of the

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24,3420

68318

AUTHOR: Peysakhson, I.V.

SOV/51-8-1-19/40

TITLE: Determination of the Parameters which Give the True Contours of  
Absorption Bands  $\lambda$ 

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 1, pp 116-117 (USSR)

ABSTRACT: This is a summary of a paper presented at the Conference on the  
Theory of Spectroscopic Instruments (Leningrad, March 5-7, 1959).

The apparatus function of a monochromator is governed by widths of the monochromator slits, diffraction phenomena and optical aberrations of the system. The monochromator can be regarded as free of aberrations, if geometrical-optics calculations show that the width of the "scattering figure" in the infinitely narrow slit representation is not greater than the normal slit width. This condition is satisfied for example in IKS-11 in those regions of the spectrum where NaCl and KBr prisms are used; in the case of LiF prisms the condition is satisfied when the slit height is limited to 10-12 mm. The apparatus function can then be represented in the form of a triangle:

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SOV/51-8-1-19/40

## Determination of the Parameters which Give the True Contours of Absorption Bands

$$\Lambda(x) = \frac{1}{\Delta\nu_e} \left( 1 - \frac{|x|}{\Delta\nu_e} \right); \quad |x| < \Delta\nu_e \quad (1,$$

whose half-width is given by:

$$\Delta\nu_e = \sqrt{\Delta\nu^2 + \Delta\nu_0^2} \quad (2)$$

where  $\Delta\nu$  is the spectral width of the slits related to the geometrical width,  $s$ , and the linear dispersion of the instrument,  $dt/d\lambda$ , by the expression:

$$\Delta\nu = \frac{sy^2}{dt}$$

and  $\Delta\nu_0$  is the normal slit width expressed in wave-numbers. Eq (2), is more precise than the expressions, proposed by several authors, of the type:

$$\Delta\nu_e = \Delta\nu + \varphi \cdot \Delta\nu_0 \quad (3)$$

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307/51-6-1-18/40

## Determination of the Parameters which Give the True Contours of Absorption Bands

where  $\psi$  is a constant. When the slits are five or more times wider than the normal slit, the role of diffraction in broadening of the slit images is small and can be neglected. When considerable aberrations are present we can still use the approximation to the apparatus function in the shape of a triangle (Eq 1), and the effect of the optical part of the monochromator on the results can be given in terms of a single quantity: an effective spectral slit width,  $\Delta\nu_e$ , i.e. the half-width of the apparatus function. If  $k(x)$  and  $K(x)$  are the true and observed optical densities ( $x$  is the distance along the wave-number axis from a certain fixed point on the absorption band contour), then, in the case of the apparatus function described by Eq (1) and small values of  $\Delta\nu_e$ , we have:

$$k(x) = K(x) + \{[K'(x)]^2 - K''(x)\} \frac{\Delta\nu_e^2}{12}. \quad (4)$$

Let  $k_m$  and  $K_m$  be the true and observed maximum optical densities and  $b$  and  $b_0$  the corresponding values of the band half-width. Then, if  $\Delta\nu_e < \frac{b}{2}$ , we find that:

$$K_m = k_m - c_1 \Delta\nu_e^2$$

(5), ✓

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## Determination of the Parameters which Give the True Contours of Absorption Bands

$$b^2 = b_0^2 + c_2 \Delta v_e^2. \quad (6)$$

The coefficients  $c_1$  and  $c_2$  depend on the band contour, but they are constant for one particular sample. Consequently by measuring  $K_m$  and  $b$  for several values of the slit widths, we can determine  $k_m$  and  $b_0$  by linear extrapolation to the infinitely narrow slit width of the dependences  $K_m(\Delta v_e^2)$  and  $b^2(\Delta v_e^2)$ ; no assumptions are made about the band contour, except that it is approximately symmetrical. The quantity  $k_m$  can be also found approximately from the values of  $K(x)$  for three equidistant values of  $x$ :

$$k_m = k_m + \left[ K_m - \frac{K(x_m + h) + K(x_m - h)}{2} \right] \frac{\Delta v_e^2}{6h^2}. \quad (7)$$

The expression in the square brackets in Eq (7) can be easily found graphically (cf. figure on p 117). For absorption-band contours, given by the Lorentz dispersion formula:

$$K(x) = \frac{A}{x^2 + \left(\frac{b}{2}\right)^2},$$

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30. /31-8-1-19/4C

Determination of the Parameters which give the True Contours of Absorption Bands

we have the following relationships:

$$k_m = \frac{v_0}{v_p} \left( 1 + \frac{2\Delta\nu_0^2}{3b^2} \right) \quad (8)$$

and :

$$b_0^2 = b^2 - \left( 1 - \frac{k_m}{3} \right) \Delta\nu_0^2. \quad (9)$$

which give the values of  $k_m$  and  $b_0$  with an accuracy of not less than 2-3% when  $\Delta\nu_0 \leq 0.4b$  and  $k_m \leq 2$ . There is 1 figure.

Note. This is a complete translation. ✓

Card 5/5

PEYSAKHSON, I.V.: TARNAKIN, I.N.

Generalized formulation of the laws of refraction and reflection  
for calculating the path of rays in optical systems. Opt. i  
spektr. 18 no.5:906-907 My '65. (MIRA 18:10)

PEYSAKHSON, I.V.; TARNAKIN, I.N.

Calculation of the aberration of concave diffraction gratings.  
Part 2: Calculation of aberrations and estimation of the  
resolving power of the grating. Zhur. prikl. spekt. 2 no.3;  
218-222 Mr '65. (MJRA 18:6)

L 64494-65 EWII(1)/EPF(c) IJP(c) M/GG  
ACCESSION NR: AP5012628

UR/0051/65/018/005/0906/0907  
535.312 + 535.314

33

B

AUTHORS: Peysakhson, I. V. Tarnakin, I. N.

TITLE: Generalized expressions for the laws of refraction and reflection for ray tracing in optical systems

SOURCE: Optika i spektroskopiya, v. 18, no. 5, 1965, 906-907

TOPIC TAGS: light reflection, light refraction, optic system, geometric optics

ABSTRACT: The authors indicate that when the standard vector expression for the refraction of light is used to trace reflected rays, it is impossible to obtain a correct result if the projections of the incident and reflected rays on the optical axis have the same sign, something which frequently occurs in high-transmission mirror systems. The standard equation is presented in the form

(1)

$$n' \mathbf{a}' = n \mathbf{a} + [\sqrt{n'^2 - n^2 + (n a N)^2} - (n a N)] \mathbf{N}$$

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where  $n$  and  $n'$  are the refractive indices of the first and second media,  $a$  and  $a'$  are the unit vectors of the incident and refracted rays, and  $N$  is the unit vector normal to the surface at the point of incidence. It is shown that Eq. (1) can be generalized for the case of reflection in the following way

$$n'a = na + \pm \{ \pm [\text{sign}(naN)] \sqrt{n'^2 - n^2 + (naN)^2 - (naN) \cdot N} \} \quad (2)$$

where the plus sign in the front of the square brackets refers to the case of refraction and the minus sign to the case of reflection. In reflection from a surface,  $n' = n$  and Eq. (2) takes the form

$$a' = a - 2(aN)N \quad (3)$$

which is the well known reflection law. If the expression under the square root in (2) turns out to be negative, this means that there is no refraction at the surface in question, but there is total internal reflection. When using (2), no limitations are imposed on either the choice of the positive direction for the normal  $N$  at the

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ACCESSION NR.: AP5012628

point of incidence of the ray at the interface or on the choice of  
the positive direction of propagation of the rays in the optical  
system. Orig. art. has: 1 figure and 3 formulas.

ASSOCIATION: None

SUBMITTED: 05Jun64

ENOL: 00

SUB CODE: OP

NR REF Sov: 000

OTHER: 002

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Card 3/3

PEYSAKHSON, I.V.; PARITSKAYA, G.G.

Characteristic function for a spherical reflecting diffraction  
grating. Opt. i spektr. 18 no.3:534-535 Mr '65. (MIRA 18:5)

REYBOLDSON, I.V., Cand Phys Math Sci -- (diss) "Effect of  
aberration of the optical system of a monochromator <sup>upon</sup> ~~on~~ its  
resolving force and <sup>upon</sup> ~~on~~ the distribution of energy in ~~the~~  
spectra under observation." Len, 1955, 16 pp (Len Order of  
Lenin State Univ in A.A. Zhdanov) 1st coies (KL, 36-16, 111)

- 11 -

PEYSAKHSON, I.V.; GUREVICH, D.B.

Optical system of a high-intensity spectral instrument for the  
visible and ultraviolet spectral regions. Izv. AN SSSR. Ser.  
fiz. 26 no.7:963-964 Jl '62. (MIRA 15:8)  
(Spectrograph)

~~SECRET~~  
PEYSAKHSON, I.

## FILE 1 BOOK EXPLANATION - SV/SL/SL

|  |     |
|--|-----|
| Leningrad. Universitet. Vsesoyuznaya Spektrofotometricheskaya (Molecular Spectroscopy) [Universitetskiy Izdatel'stvo Leningr. univ., 1960. 150 p. 4,700 copies printed.]   | 1   |
| Sup. Ed.: F. I. Sharipov; Eds.: Yu. V. Shchegolejeva and V. D. Plastov; Sch. Ed.: S. D. Vodolazskiy.   |     |
| Purpose: This collection of articles is intended for scientific workers, structures and students of physics and chemistry. It may also be used by engineers and technicians employing molecular spectroscopy.  |     |
| Content: The collection of articles describes spectroscopic studies of liquids and solutions, and includes data on applied molecular spectroscopy. Individual articles deal with the molecular interaction in solutions, and specifically with the hydrogen bond problem. Works on the optimum utilization of apparatus and on the analytical application of molecular spectroscopy are also included. |     |
| Aspects of the structure of high and low molecular compounds and of molecular complexes are also covered. The collection was published in honor of the 70th birthday of Professor Vladimir Stepanovich Serebrovsky, Soviet specialist in molecular spectroscopy and spectral analysis. There are no references.  |     |
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67155

S.C., 51-1007-15

**24.3410**

AUTHORS:

Chulanovskiy, V.M., Poyarkhson, I.V. and Shchepkin, D.N.

TITLE:

Determination of the Absolute Values of Parameters Characterizing the Intensity in Infrared Absorption Spectra in the Absence of Secular Distortions

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, No 6, pp 763-769 (USSR)

ABSTRACT: In currently used infrared single-beam automatic-recording spectrophotometers the so-called secular distortions, due to inertia of the amplifying and recording parts of the apparatus at the initial scanning rate cause great difficulties in determination of the true values of spectral parameters. The authors employed the following method which avoids these secular distortions. Recording was started with the beam cut off in order to obtain the zero level of intensity. Then a cell containing pure solvent was introduced into the beam (the corresponding intensity was  $I_0$ ) as soon as the recorder started to draw a straight line parallel to the zero line a cell containing solution was introduced into the beam and the corresponding intensity  $I$  recorded. Again when the recorder began to draw a line parallel to the zero line the beam was cut off completely. In this way a record shown in a figure

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Determination of the Absolute Values of Parameters Characterizing the Intensity in  
Infrared Absorption Spectra in the Absence of Secular Distortions

on p 764 was obtained. The time lost by this process was fully compensated by the great simplicity and reliability of measuring intensity I, which was required to determine optical density. The return to zero after each cycle of measurements avoids the necessity of controlled records. Under the conditions described, the secular distortions are avoided entirely and the distortions due to noise are easily found. The authors describe three methods of determining spectral parameters, such as optical density at the band maximum, integral density and half-width of the band, corrected for distortion due to the monochromator and expressed in terms of the latter's output function. The computational work reported in this paper was carried out by I.V. Persakson and the experimental part was carried out by D.N. Shchepkin. There are 1 figure and 5 references, 3 of which are Soviet and 2 English.

4

SUBMITTED: May 14, 1982

Jard 2/2

PEISAKHON, B.E.

Organizatsiya dvizhenia na zheleznodorozhnom transporte. [Organization of railroad traffic]. Izd. 2., ispr. i dop.; pod obshchей red. B. V. Isaeva. Uchebnik dlia vuzov zheleznodorozhnogo transporta. [Moskva], Transzheldorizdat, 1939. v. 2 (360 p.)

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[Weight and speed of freight trains; potentials for their  
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Mikhail Andreyevich, kandidat tekhnicheskikh nauk; SHILOVSKIY,  
Viktor Anatol'yevich, kandidat tekhnicheskikh nauk; NIKOLAYEV, I.I.,  
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Selection of weight and speed for freight trains using different types of traction. Tekh.zhel.dor.15 no.4:9-13 Je '56.(MLRA 9:9)  
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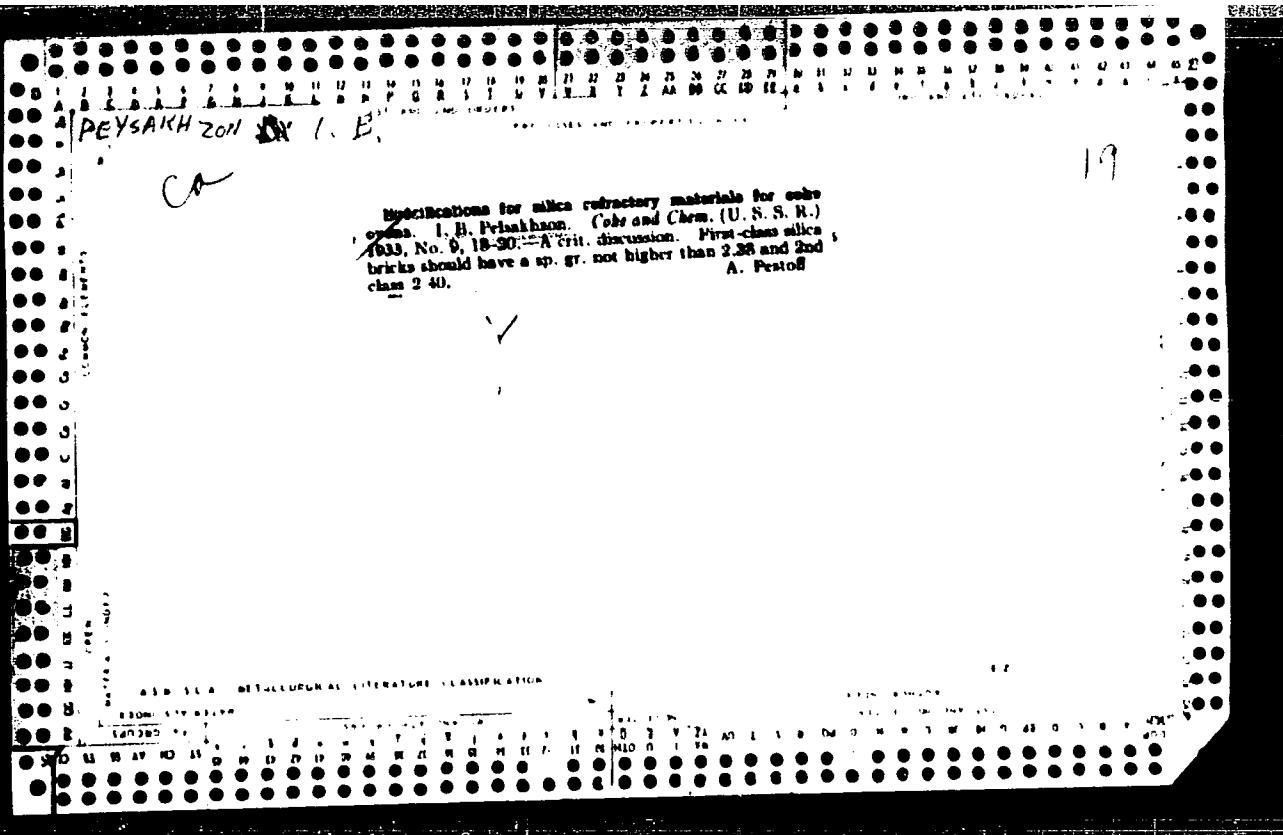
PEYSAKHEON, I.

New trends in the planning, design, and construction of coke and coal chemicals plants in the United States and Canada. Koks i khim. no.10:  
60-62 '62. (MIRA 16:9)

(United States—Coke industry)  
(Canada—Coke industry)

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"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001240720007-8

Regenerative coke oven J. H. Persikson Russ  
1936, July 31, 1937 Construction details

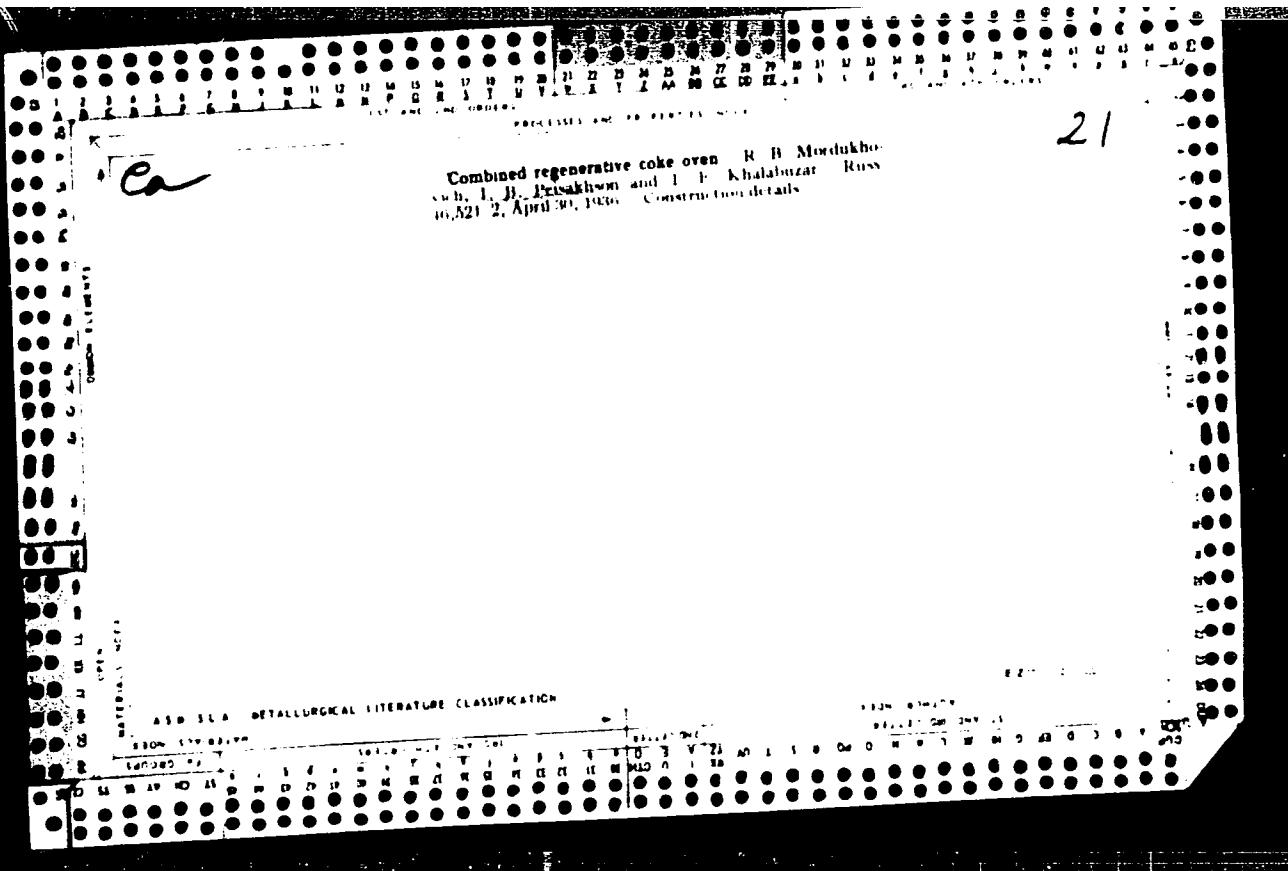
ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

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CA  
The influence of the construction of the interwall space  
of coke ovens on the yield of chemical products I II  
Permakson. *Coke and Chem.* (U. S. S. R.) 9, No. 3, 30-4  
(1939); *Chem. Zentral.* 1939, II, 3342. Since the temp. of  
the upper mass of gas in the operating coke oven has a  
marked influence on the quality and yield of chem. prod.  
this temp. must be held as const. as possible and  
must not exceed 630°-700°. The causes of a possible over-  
heating of this region were investigated and some minor  
improvements in the construction of the Becker furnace  
are proposed. M. G. Moore

PEYSAKHZON, I.B.; KULAKOV, N.K.

~~Achievements in the field of the designing of coking ovens. Koks i khim. no.11:23-29 '57.~~ (MIRA 10:12)

1. Giprokoks.  
(Coke ovens)

Peg Jackson, T.B.

- PLATE I BOOK EXPLORATION SOV/2127
- 9(1) Kombinatskoe proizvodstvo Chernihivskoy oblastnoy byt-Produkt Chokine Industrii Collection of Articles Moscow, Metalurgizdat, 1959. 240 p. 2,500 copies printed.
- Ed. by V. G. Malyshev Ed. of Publishing House A. A. Novikov Tech. Ed. I. P. G. Izdat. press
- PURPOSE:** The book is intended for engineers and technicians in the by-product coke industry and in scientific research activities. The book may also be used by students in secondary and higher technical schools.
- CONTENTS:** The articles in this collection on the by-product coke industry (coker chemistry) or in other publications during 1955-1956. The book discusses the development of raw-material reserves for coking, technology of the manufacture of coke, quality of coke and further enlargement of the number of chemical coke products obtained. Some articles are devoted to a new procedure for preparing and beneficiating coke, new methods for calcining, and to the mechanization and automation of industrial processes. References accompany individual articles.
- Stryazhev, V. S., L. M. Lazarevsky, and M. G. Pol'shchik. [TOMAR]. The Basic Principle for Preparation of Coke for Coking by Crude Oil. Report No. 126. [Candidate of Technical Sciences, USSR]. Beneficiation of Coking Coke in Berry Mills.
- Kazantsev, V. S. [VNIIGKhorganicheskoye], and A. Z. Yurovsky [TET AS USSR]. Densitometric Beneficiation of Coke Coke.
- Bilobotsk, V. Yu. [Sorokin (SUN)]. Consistency of the Quality Indices of Coke Characteristics, and V. I. Melnikov [Coprocks]. Progress in Coke-  
Oleum-Sulfurite Coke.
- Plisnitsky, B. B. [Candidate of Technical Sciences, Gosprom BUSH]. Improvement in the Operation and Lengthening of the Life of Coke Ovens.
- Murach, I. I., L. I. Volobets, and S. A. Savchenko [Candidate of Technical Sciences, USSR]. Improvement of the Heating and Technological Regime of Coke Ovens.
- Fertik, Iu. Iu., Iu. I. Lobanov, and N. A. Pernatayko. [TOMAR]. Coking of the Eastern Coke with the Use of Spraying.
- Lemmer, J.-A. [Joseph Lemmer]. Partial Mechanization and Automation in Coke Plants.
- Sachchukina, N. A. [Metalurgizdat], and S. A. Savchenko [Gosprom BUSH]. Ferro-Coke and Its Use in the Blast Furnace.
- Kozlik, V. I. [Dnepropetrovskii metalurgicheskii kombinat - Magnitogorsk Metallurgical Combine]. Methods of Increasing the 60-80 mm Fraction of Metallurgical Coke.
- Levchenko, N. S., and I. N. Bozaiichikoff [TOMAR]. Prospects of the Development of Processing Chemical Oresained in the By-Product Coke Industry in the USSR. During 1959-1965.
- Bozaiichikoff, I. N. [TOMAR]. Progress in Developing a Larger Number of Primary Products in the Processing of Coal Tar.
- AVAILABILITY: Library of Congress

SOV/2127  
10-30-59

Card 1A

1 e i b  
KOZYREV, V.P.; MOLODTSOV, I.G.; PEYSAKHZON, I.B.; PODZOLKOV, M.I.;  
TORYANIK, I.Kh.; FLORINSKIY, N.V.

Comments on the article of R.Z. Lerner "Changing the coke unit  
layout for considerable increase in the number of ovens per  
battery." Koks i khim. no.5:29-31 '57. (MLRA 10:5)

1. Gosudarstvennyy Institut po proyektirovaniyu predpriyatii  
koksokhimicheskoy promyshlennosti.  
(Coke ovens) (Lerner, R.Z.)

AUTHORS: Kozyrev, V.P., Molodtsov, I.G., Peysakhzon, I.B., 68-5-6/14  
Podzolkov, M.I., Toryanik, I.Kh., and Florinskiy, N.V.

TITLE: On the paper by R.Z. Lerner "On changes of the composition  
of coke oven department in order to increase considerably  
the number of ovens in a battery". (K stat'e R.Z.Lernera  
"Ob izmenenii komponovki koksosvogo tsekha dlya znachitel'  
nogo uvelicheniya chisla pechey v batareye".)

PERIODICAL: "Koks i Khimiya" (Coke and Chemistry), 1957, No.5,  
pp.29-31 (U.S.S.R.)

ABSTRACT: In the original paper, L.Z. Lerner proposed some changes  
in the composition of the coke oven department in order to  
increase the number of ovens in one battery to 100. Ser-  
vicing of such a battery would be carried out by one set  
of coke oven machines. According to Lerner the proposed  
composition of the coke oven department: 4 batteries of  
100 ovens each in comparison with the standard composition  
(65 ovens per battery) has the following advantages:- the  
number of personnel required will remain the same as for  
the standard battery but the labour productivity will in-  
crease by 64.2% and the capital expenditure will be 10-12%  
lower. The present authors consider that the advantages  
Card 1/2 Lerner expects are unfounded. To prove this point the

On the paper by R.Z. Lerner "On changes of the composition of coke oven department in order to increase considerably the number of ovens in a battery". (Cont.) 68-5-6/14

authors quote labour requirements for the often practised separation of 2 batteries with 90-110 ovens into an independent unit (Table 1) and compare them with those stated by Lerner (Table 2). A similar comparison for the labour productivity of main coke oven craftsmen for 78-110 oven units and 61-69 units is given in Table 2. Very approximate calculations indicated that the capital expenditure will remain the same. The editorial office communicates that Lerner's paper was discussed during a special session of Glavkoks with the participation of Giprokok. In view of the division of opinion Giprokok was requested to design a coke oven department according to Lerner's proposals and to prepare a technical-economical comparison with the usual design. The final decision on the problem will be published in this journal. There are 3 tables.

ASSOCIATION: Giprokok

AVAILABLE:

Card 2/2

VODNEV, G.G.; SHELKOV, A.K.; DIDENKO, V.Ye.; FILIPPOV, B.S.; TSAREV, M.N.;  
ZASHVARA, V.G.; LITVINEKO, M.S.; MEDVEDEV, I.P.; MOLODTSOV, I.G.;  
LGALOV, K.I.; RUBIN, P.O.; SAPOZHNIKOV, L.M.; TYUTYUNNIKOV, G.N.;  
DMITRIYEV, M.M.; LEITES, V.A.; LERNER, B.Z.; MEDVEREDEV, S.M.; REVYAKIN,  
A.A.; TAYCHER, M.M.; TSOGLIN, M.E.; DVORIN, S.S.; RAK, A.I.; OBUKHOV-  
SKIY, Ya.M.; KOTKIN, A.M.; ARONOV, S.G.; VOLOSHIN, A.I.; VIROZUB, Ye.V.;  
SHVARTS, S.A.; GINSBURG, Ya.Ye.; KOLYANDR, L.Ya.; BELETSKAYA, A.F.;  
KUSHNEREVICH, N.R.; BRODOVICH, A.I.; NOSALEVICH, I.M.; SHTROMBERG, B.I.;  
MIROSHNICHENKO, A.M.; KOPELIOVICH, V.M.; TOPORKOV, V.Ya.; AFONIN, K.B.;  
GOFTMAN, M.V.; SEMENENKO, D.P.; IVANOV, Ye.B.; PEYSAKHzon, I.B.;  
KULAKOV, N.K.; IZRAELIT, E.M.; KVASHA, A.S.; KAPTAN, S.I.; CHERNYKH,  
M.S.; SHAPIRO, A.I.; KHALABUZAR', G.S.; SEKT, P.Ye.; GARAY, L.I.;  
SMUL'SON, A.S.

Boris Iosifovich Kustov; obituary. Koks i khim. no.2:64 '55. (MIRA 9:3)  
(Kustov, Boris Iosifovich, 1910-1955)

PEYSAKHSON, I.V.

Effect of a distorted spectrographic camera objective on the  
curvature of spectral lines. Opt.i spektr. ll no.1:125-127 JI  
'61. (NIR A 14:10)

(Spectrograph)

FEYSAKHZON, L.B., kand.ekonom.nauk, dotsent

Using production cost norms for measuring the volume of production and  
labor productivity. Izv.vys.ucheb.zav.; tekhn.leg.prom. no.1:21-27  
'63. (MIRA 16:3)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.  
Rekomendovana kafedroy ekonomiki promyshlennosti o organizatsii  
proizvodstva.  
(Productivity accounting) (Costs, Industrial)

AFANAS'YEV, O.O. [Afanas'iev, O.O.]; GORVITS, S.M. [Horvits, S.M.];  
IGNATOVA, L.P. [Ihnatova, L.P.]; KOTOV, M.P.; NOVIK, G.B.  
[Novyk, H.B.]; OHLOV, I.V.; PEYSAKHzon, L.B.; ROZENMAN, G.S.  
[Rozenman, H.S.]; SKATERNOY, V.A.; TSITRIN, L.I.; CHECHENEV,  
M.I. [Checheniev, M.I.]; SHOSTAK, S.I.; NAZARENKO, N., red.;  
GORKAVENKO, L. [Horkavenko, L.], tekhn.red.

[Light industry of the Ukraine] Lehka promyslovist' Ukrayny.  
Kyiv, Derzh.vyd-vo tekhn.lit-ry URSR, 1960. 197 p.

(MIRA 14:4)

(Ukraine--Industries)

PEYSAKHZON, L.B., kand.ekonomiceskikh nauk

Some potential savings of labor in the clothing industry. Izv.  
vys.ucheb.zav.; tekhn.leg.prom. no.6:3-15 '60. (MIRA 14:1)

1. Kiievskiy tekhnologicheskiy institut legkoy promyshlennosti.  
Rekomendovana kafedroy ekonomiki promyshlennosti i organizatsii  
proizvodstva.

(Clothing industry--Management)

PEYSAKHON, L.B., kand.ekonomicheskikh nauk, dotsent; ALEKSEYEVA, L.L., kand. tekhn.nauk; MEESEZHNIKOV, G.Sh., kand.ekon.nauk; BARANOV, V.F., inzh.; AFANAS'YEV, A.A., kand.tekhn.nauk, dotsent

Some potentialities for better use of time and equipment in cutting artificial leather in footwear enterprises. Izv.vys.ucheb.zav.; tekhn.leg.prom. no.6:16-21 '60. (MIRA 14:1)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy ekonomiki promyshlennosti i organizatsii proizvodstva.

(Shoe industry)

(Leather, Artificial)

PEYSAKIZON, L.B., kand.ekon.nauk dots.

Methods for measuring labor productivity in light industry.  
Report No.1. Izv.vys.ucheb.zav.; tekhn.leg.prom. no.5:3-15  
'59. (MIRA 13:4)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.  
Rekomendovana kafedroy ekonomiki i organizatsii proizvodstva.  
(Labor productivity)

AUTHORS: Peysakhzon, I.B., and Kulakov, N.K.

68-11-5/11

TITLE: Achievements in the Field of Design of Coke Ovens  
(Dostizheniya v oblasti konstruirovaniya koksovykh pecей)

PERIODICAL: Koks i Khimiya, 1957, No.11, pp. 23 - 29 (USSR)

ABSTRACT: The development of the Soviet design of coke ovens (Bekker type) is described in some detail. The first ovens of Soviet design were built in 1934. In 1945-1946, two types of ovens were established ПК-2К and ПБР. Up to 1951, the size of the ovens was standardized: width 407 mm, height 4 300 mm, length 13.12 m, the difference in width between pusher and coke side 50 mm. From 1951, the length was increased to 14.0 m. Coking period 14 to 15 hours. In 1955, both types of ovens were modernized. At present, the design of coke ovens is developing in two directions: complete revision of all dimension of the oven (width, height and length) towards their increase and improvement of heating systems and elements of ovens. A 77 oven battery with ovens 450 mm wide, 5 000 mm in height and 15.04 m long will soon be completed. Ovens for coking batch for the production of electrode coke of Soviet design have already been operating satisfactorily for some years. Plant for dry quenching of coke of a bunker type with the reduction of steam

Card 1/2

Achievements in the field of Design of Coke Ovens. 68-11-5/11

: of 40 atm. was developed and the construction of such plant  
was started. There are 4 figures.

ASSOCIATION: Giprokok

AVAILABLE: Library of Congress

Card 2/2

PEYSAKHZON, L.B., kand.ekon.nauk

Indices for the production capacity of clothing plants. Izv. vvs.  
ucheb. zav.; tekhn.leg. prom. no.2:123-130 '58. (MIRA 11:6)

1.Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.  
(Clothing industry)

ПЛЕШКОВА, Л.Б., kand. ekonomich. nauk, dozent

Indices of the utilization of capital assets in light industry.

Izv.vys.uchel.sav.;tekhn.let.prom. no.4:3-10 '61.

(MRA 14:11)

1. Kiyevskiy tehnologicheskiy institut legkoy promyshlennosti.  
Rekomendovana na fedroy ekonomik promyshlennosti i organizatsii  
proizvodstva.

(Industrial organization)

(Capital)

NOVIK, G.B.; PEYSAKHZON, L.B.

Potentialities of a labor productivity increase in the Ukrainian clothing industry. Leg.prom.15 no.9:8-13 S '55. (MLRA 9:1)

1.Glavnyy inzhener Glavshveyproma Ministerstva promyshlennyykh tovarov shirokogo potrebleniya USSR (for Novik).2.Dotsent Kiyevskogo tekhnologicheskogo instituta legkoy promyshlennosti (for Paysakhzon).

(Ukraine--Clothing industry)

PEYSAKHZON, L.B., kand.ekonomiceskikh nauk, dotsent

Some problems of the measurement of labor productivity in light industry. Izd.vys.ucheb.zav.; tekhn.leg.prom. no.5:3-16 '61.  
(MIRA 14:12)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.  
Rekomendovana kafedroy ekonomiki promyshlennosti i organizatsii  
proizvodstva.

(Work measurement)

RASHEVSKIY, A.N. [Rashevs'kiy, A.N.], inzh.; PEYSAKHZON, N.Ya. [Peisakhzon, N.IA.], inzh.

Mounted universal loader for DT-20 tractors. Mekh. sil'. hosp. 11  
(MIRA 13:9)  
no.9:20-21 S '60.

1. Khar'kovskiy proyektno-tehnologicheskiy eksperimental'nyy  
institut mashinostroyeniya.  
(Loading and unloading)

RASHEVSKIY, A. N., inzh.; PEYSAKHZN, N. Ya., inzh.

Universal mounted loader for the DT-20 tractor. Trakt. i sel'-  
khozmash. 30 no.8:32-33 Ag '60. (MIRA 13:8)  
(Loading and unloading)

ACC NR: AP6029985

SOURCE CODE: UR/0413/66/000/015/019../019..

INVENTOR: Peysel', M. A.; Samoylov, Ye. I.; Moshkin, Yu. A.

ORG: none

TITLE: Vibration damper for the front landing gear strut of an aircraft. Class 62,  
No. 184143

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 1966

TOPIC TAGS: vibration damping, aircraft landing gear, airframe component

ABSTRACT: This Author Certificate introduces a vibration damper for the front landing gear strut of an aircraft containing a cylinder mounted on a stationary section of the strut and a piston containing a throttle valve, which is hinged to a rocker. For more dependable vibration damping in the front strut and better ground handling of an aircraft while the piston is in multistaged nonlinear motion, the piston is equipped with two pairs of rods. The rods form an articulated link in series between the piston rod and the movable controlled section of the strut and between themselves; the piston has an annular throttle aperture of variable cross-section. (SA)

SUB CODE: 01/ SUBM DATE: 10Oct64

Card 1/1

MIC: 629.135/138

SHIKINA, Ye.S.; MESHALOVA, V.N.; PEYSEL', S.G.; CHIRKOVA, O.O.

Experience in the production of antimeasles horse serums and  
gamma globulin. Trudy Len.inst.epid.i mikrobiol. 22:55-63 '61.  
(MIRA 16:2)

1. Iz virusologicheskoy laboratorii Leningradskogo instituta  
epidemiologii i mikrobiologii (rukovoditel' - chlen-korrespondent  
AMN SSSR prof. A.A. Smorodintsev) i immunologicheskoy laboratorii  
Leningradskogo instituta vaktsin i sывороток (rukovoditel' -  
prof. A.V. Ponomarev).

(GAMMA GLOBULIN) (SERUM) (MEASLES)

USSR/General Problems of Pathology - Cytotoxins

U-1

Abs Jour : Ref Zhur - Biol., No. 18, 1958, 84773

Author : Peysel', Z. G.  
Inst : Institutes of Vaccines and Sera of the Ministry  
of Health USSR  
Title : Distribution of Cytotoxins between the Various  
Fractions of the Serum ProteinsOrig Pub : Materialy po obemny opytom, Gl. Upr. in-tov  
vaktsin i syvorotok M-va zdravookhr. SSSR,  
1956, 2-52, 213-217Abstract : In two series of horse antireticular cytotoxic sera  
(ACS), studies were made of the distribution of the  
cytotoxins (C) between the different fractions. The  
ACS was fractionated by the methods of electro-  
dialysis, of isoelectric precipitation with subse-  
quent removal of the isostable globulins by salting  
with  $(\text{NH}_4)_2\text{SO}_4$ , and by means of sequential salting-  
out with  $(\text{NH}_4)_2\text{SO}_4$ . The C were associated with two  
different fractions of the isostable globulins, which

Card 1/2

✓ USSR / General Problems of Pathology. Immunity.

U

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102398.

Author : Peysel', Z. G.; Yarmolenko, A. G.; Vorob'yev, A. A.

Inst : Not given.

Title : The Influence of Nonspecific Stimuli on the Production of Diphtherial and Tetanus Antitoxin.

Orig Pub: Zh. mikrobiol., epidemiol. i immunobiol., No 2,  
121-122. Feb '58

Abstract: Rabbits were immunized by diphtherial anatoxin. Prior to immunization, they had 0.0005 active units in 1 ml. After the 3rd immunization, both in those receiving pilocarpine (I;0.5 mg/kg) and in control rabbits, after a small decrease, the titer active unit reached the maximum (0.06 and 0.04) towards the 48th hour. With introduction

Card 1/2

16

AUTHORS: Pozdnyakov, G.P., Kormilitsyn, N.S. 130-58-5-14/16  
TITLE: On the Organisation of Product Quality Control in Southern Open-hearth and Bessemer Shops (Ob organizatsii kontrolya kachestva produktsii v martencovskikh i bessemerevskikh tsekhakh yuga)

PERIODICAL: Metallurg, 1958, Nr 5, pp 35 - 36 (USSR).

ABSTRACT: This is a contribution to the discussion of the organisation of product quality control started by the publication in "Metallurg", 1957, Nr 9 of the article by Inozemtsev, Sokol, Rysev, Tarasenkov and Zamyatin. The present authors show how existing organisations differ at the Makeyevka Stalino, imeni Dzerzhinskiy, imeni Litknecht and imeni Petrovskiy Works. They maintain that the functions of the quality control department had been expanded beyond their original bounds even though the qualifications of production personnel had greatly improved and that this undermines the authority and responsibilities of production personnel and has been an important source of unsatisfactory product quality. They give data for the above works to show that quality-control inspectors have often failed to prevent incorrect procedures and state that their qualifications are often inferior to that of production personnel in melting shops

Cardl/2

130-58-5-14/16

On the Organisation of Product Quality Control in Southern Open-hearth and Bessemer Shops

(Stalino and Makeyevka Works). The authors consider quality control in open-hearth and bessemer shops in more detail again contrasting these at the different works and propose the following organisation: production personnel to be responsible for hot-melt quality and mixer charging, discharging and de-sludging; ingot-mould preparation-bay or casting bay personnel to be responsible for all operations in the preparation of bogies and bays; production personnel to have full responsibility for adhering to technological instructions in steel melting and the foreman himself to sign the certificate; teeming ladles, runners, teeming procedure to be the responsibility of the section head and teeming foreman who complete the appropriate sections of the certificate. The authors briefly discuss the functions of the works' laboratories whose staffs, they maintain, should be augmented by quality-control personnel made redundant by the new organisation.

ASSOCIATION: VNIIChERMET

Card 2/2

(PHYSIK, M.I.

Geology, and oil and gas potentials of the Polish-Lithuanian depression  
and adjacent areas. Trudy SGPK no.1:174-240 '60. (MIRA 13:10)  
(Baltic Sea Region--Petroleum geology)  
(Baltic Sea Region--Gas, Natural--Geology)

PEYSIK, M.I.; STANKEVICH, L.I.; YAROSHENKO, V.N.

State of underground gas storage in the Leningrad industrial  
area. Trudy SGPK no.3:103-124 '62. (MIRA 15:10)  
(Leningrad region--Gas, Natural--Storage)  
(Prospecting)

LYUPKEVICH, Ye.M.; PEYSIK, M.I.

The northern part of the Russian Platform. Trudy VNIIGRI no.1  
(MIRA 10:1)  
'57.  
(Russian Platform--Geology)

LYUTKEVICH, Ye.M.; PEYSIK, M.I.

Oil- and gas-bearing prospects of the northern and northwestern  
parts of the Russian Platform. Trudy VNIGRI no.111:5-28 '57.  
(Russian Platform--Petroleum geology) (MIRA 11:6)  
(Russian Platform--Gas, Natural--Geology)

LYUTKEVICH, Ye.M.; PEYSIK, M.I.

The northwestern part of the Russian Platform. Trudy VNIGRI  
no. 101: 89-140 '57. (MLRA 10:1)  
(Russian Platform--Geology)

PEYSIK, M. I.

Pevsik, M. I. "Problems of the method of structural mapping of drilling," Razvedka  
nedr, 1948, No. 6, p. 23-29

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, no. 3, 1949)